Welcome to STN International! Enter x:x

LOGINID:sssptau125txc

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

NO 104,7 63)

```
Welcome to STN International
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS
                 "Ask CAS" for self-help around the clock
NEWS
                CA/CAplus records now contain indexing from 1907 to the
NEWS
        SEP 09
                 present
                New pricing for EUROPATFULL and PCTFULL effective
NEWS
        AUG 05
                August 1, 2003
                Field Availability (/FA) field enhanced in BEILSTEIN
        AUG 13
NEWS
     5
                Data available for download as a PDF in RDISCLOSURE
        AUG 18
NEWS
      6
                Simultaneous left and right truncation added to PASCAL
NEWS
     7
        AUG 18
                FROSTI and KOSMET enhanced with Simultaneous Left and Righ
NEWS 8
        AUG 18
                 Truncation
NEWS 9 AUG 18
                Simultaneous left and right truncation added to ANABSTR
NEWS 10 SEP 22
                DIPPR file reloaded
                INPADOC: Legal Status data to be reloaded
NEWS 11 SEP 25
NEWS 12 SEP 29
                DISSABS now available on STN
                PCTFULL: Two new display fields added
NEWS 13 OCT 10
                BIOSIS file reloaded and enhanced
NEWS 14 OCT 21
                BIOSIS file segment of TOXCENTER reloaded and enhanced
NEWS 15 OCT 28
NEWS EXPRESS OCTOBER 01 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
              MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
              AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
              STN Operating Hours Plus Help Desk Availability
NEWS HOURS
              General Internet Information
NEWS INTER
NEWS LOGIN
              Welcome Banner and News Items
              Direct Dial and Telecommunication Network Access to STN
NEWS PHONE
NEWS WWW
              CAS World Wide Web Site (general information)
```

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 14:17:14 ON 29 OCT 2003

=> FILE USPATFULL COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'USPATFULL' ENTERED AT 14:17:24 ON 29 OCT 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

```
FILE COVERS 1971 TO PATENT PUBLICATION DATE: 28 Oct 2003 (20031028/PD)
FILE LAST UPDATED: 28 Oct 2003 (20031028/ED)
HIGHEST GRANTED PATENT NUMBER: US6640338
HIGHEST APPLICATION PUBLICATION NUMBER: US2003200588
CA INDEXING IS CURRENT THROUGH 28 Oct 2003 (20031028/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 28 Oct 2003 (20031028/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2003
>>> USPAT2 is now available. USPATFULL contains full text of the
                                                                          <<<
>>> original, i.e., the earliest published granted patents or
                                                                          <<<
>>> applications. USPAT2 contains full text of the latest US
                                                                         <<<
>>> publications, starting in 2001, for the inventions covered in
                                                                         <<<
>>> USPATFULL. A USPATFULL record contains not only the original
                                                                         <<<
>>> published document but also a list of any subsequent
                                                                          <<<
>>> publications. The publication number, patent kind code, and
                                                                          <<<
>>> publication date for all the US publications for an invention >>> are displayed in the PI (Patent Information) field of USPATFULL
                                                                          <<<
                                                                          <<<
>>> records and may be searched in standard search fields, e.g., /PN, <<<
                                                                          <<<
>>> /PK, etc.
>>> USPATFULL and USPAT2 can be accessed and searched together
                                                                          <<<
    through the new cluster USPATALL. Type FILE USPATALL to
                                                                          <<<
                                                                          <<<
>>> enter this cluster.
                                                                          <<<
>>>
                                                                          <<<
>>> Use USPATALL when searching terms such as patent assignees,
                                                                          <<<
>>> classifications, or claims, that may potentially change from
                                                                          <<<
>>> the earliest to the latest publication.
This file contains CAS Registry Numbers for easy and accurate
substance identification.
=> S OCTOXYGLYCERIN? AND BIGUANIDE?
            31 OCTOXYGLYCERIN?
          3222 BIGUANIDE?
             1 OCTOXYGLYCERIN? AND BIGUANIDE?
L1
=> D L1
     ANSWER 1 OF 1 USPATFULL on STN
T.1
       2003:219354 USPATFULL
ΑN
       Gentle-acting skin-disinfectants
TI
       Modak, Shanta, Riveredge, NJ, UNITED STATES
IN
       Gaonkar, Trupti A., New York, NY, UNITED STATES
       Sampath, Lester, Nyack, NY, UNITED STATES
ΡI
       US 2003152644
                        A1
                                20030814
       US 2001-47631
                          A1
                                20011023 (10)
ΑI
DT
       Utility
FS
       APPLICATION
LN.CNT 1109
INCL
       INCLM: 424/667.000
       INCLS: 514/637.000; 514/642.000; 514/721.000
       NCLM: 424/667.000
NCL
       NCLS: 514/637.000; 514/642.000; 514/721.000
IC
       [7]
       ICM: A61K033-36
       ICS: A61K031-155; A61K031-14; A61K031-075
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

## => S OCTOXYGLYCERIN AND ANTIBACTERI? 27 OCTOXYGLYCERIN

29895 ANTIBACTERI?

L2 12 OCTOXYGLYCERIN AND ANTIBACTERI?

=> S BIGUANIDE AND ANTIBACTERI?

2421 BIGUANIDE

29895 ANTIBACTERI?

L3 606 BIGUANIDE AND ANTIBACTERI?

=> S L2 AND L3

L4 1 L2 AND L3

=> FILE REGISTRY

COST IN U.S. DOLLARS

SINCE FILE TOTAL

7.23

ENTRY SESSION

7.44

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 14:20:10 ON 29 OCT 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 27 OCT 2003 HIGHEST RN 609766-09-8 DICTIONARY FILE UPDATES: 27 OCT 2003 HIGHEST RN 609766-09-8

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> S OCTOXYGLYCERIN/CN

L5 1 OCTOXYGLYCERIN/CN

=> D L5

L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS on STN

RN 10438-94-5 REGISTRY

CN 1,2-Propanediol, 3-(octyloxy)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) OTHER NAMES:

CN 1,2-Dihydroxy-4-oxadodecane

CN 1-0-Octyl-rac-glycerol

CN 1-Octyl glyceryl ether

CN 3-(Octyloxy)-1,2-propanediol

CN 3-Octyloxy-1,2-propylene glycol

CN Glycerin 1-octyl ether

CN Glycerol .alpha.-octyl ether

CN Glycerol 1-octyl ether

CN Octadiol

CN Octoxyglycerin

FS 3D CONCORD

DR 113725-19-2

MF C11 H24 O3

CI COM

LC STN Files: BEILSTEIN\*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, IFICDB, IFIPAT, IFIUDB, TOXCENTER, USPAT2, USPATFULL (\*File contains numerically searchable property data)

OH | HO-  $CH_2$ - CH-  $CH_2$ - O- ( $CH_2$ ) 7- Me

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

101 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

102 REFERENCES IN FILE CAPLUS (1907 TO DATE)

8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> FILE USPATFULL COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 6.70 14.14

FULL ESTIMATED COST

FILE 'USPATFULL' ENTERED AT 14:21:32 ON 29 OCT 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 28 Oct 2003 (20031028/PD)
FILE LAST UPDATED: 28 Oct 2003 (20031028/ED)
HIGHEST GRANTED PATENT NUMBER: US6640338
HIGHEST APPLICATION PUBLICATION NUMBER: US2003200588
CA INDEXING IS CURRENT THROUGH 28 Oct 2003 (20031028/UPCA)
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 28 Oct 2003 (20031028/PD)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Aug 2003
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2003

>>> USPAT2 is now available. USPATFULL contains full text of the <<< >>> original, i.e., the earliest published granted patents or <<< >>> applications. USPAT2 contains full text of the latest US <<< >>> publications, starting in 2001, for the inventions covered in <<< >>> USPATFULL. A USPATFULL record contains not only the original <<< <<< >>> published document but also a list of any subsequent publications. The publication number, patent kind code, and <<< publication date for all the US publications for an invention <<< are displayed in the PI (Patent Information) field of USPATFULL <<< >>> records and may be searched in standard search fields, e.g., /PN, <<< <<< >>> /PK, etc.

>>> USPATFULL and USPAT2 can be accessed and searched together <<<br/>
>>> through the new cluster USPATALL. Type FILE USPATALL to <<<<br/>
>>> enter this cluster.

>>> Check this student.

>>> Use USPATALL when searching terms such as patent assignees, <<< >>> classifications, or claims, that may potentially change from the earliest to the latest publication. <

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> S 10438-94-5/RN L6 27 10438-94-5/RN

```
L7 281531 HIS
=> D HIS
     (FILE 'HOME' ENTERED AT 14:17:14 ON 29 OCT 2003)
     FILE 'USPATFULL' ENTERED AT 14:17:24 ON 29 OCT 2003
              1 S OCTOXYGLYCERIN? AND BIGUANIDE?
L1
             12 S OCTOXYGLYCERIN AND ANTIBACTERI?
L2
            606 S BIGUANIDE AND ANTIBACTERI?
L3
              1 S L2 AND L3
L4
     FILE 'REGISTRY' ENTERED AT 14:20:10 ON 29 OCT 2003
L5
              1 S OCTOXYGLYCERIN/CN
     FILE 'USPATFULL' ENTERED AT 14:21:32 ON 29 OCT 2003
L6
             27 S 10438-94-5/RN
         281531 S HIS
L7
=> S L6 AND L3
             1 L6 AND L3
^{18}
=> S L3 AND PD<1999
       2436034 PD<1999
                 (PD<19990000)
           368 L3 AND PD<1999
L9
=> S L3 AND PD<1980
        570697 PD<1980
                 (PD<19800000)
L10
           129 L3 AND PD<1980
=> S L3 AND PD<1970
           335 PD<1970
                 (PD<19700000)
             0 L3 AND PD<1970
L11
=> S L3 AND PD<1978
        447491 PD<1978
                 (PD<19780000)
L12
            74 L3 AND PD<1978
=> D L12 1-5, 69-74
L12 ANSWER 1 OF 74 USPATFULL on STN
       78:24587 USPATFULL
ΑN
       Dentifrice containing visible agglomerated particles of polishing agents
ΤI
       Roberts, Francis D., West Millington, NJ, United States
IN
       Steinke, III, John J., Fayetteville, NY, United States
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
       US 29634
                                19780516
PΙ
                                                                      <--
       US 3574823
                                19710413 (Original)
       US 1975-604997
                                19750815 (5)
AΤ
                                19680805 (Original)
       US 1968-750028
       Continuation of Ser. No. US 1972-224629, filed on 8 Feb 1972, now
RLI
       abandoned
       Reissue
DT
       Granted
FS
LN.CNT 668
       INCLM: 424/057.000
INCL
```

=> S HIS

```
INCLS: 424/049.000; 424/052.000; 424/054.000
       NCLM: 424/057.000
NCL
       NCLS: 424/049.000; 424/052.000; 424/054.000
IC
       [2]
       ICM: A61K007-18
       ICS: A61K007-22
EXF
       424/48-58; 051/293-309
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 2 OF 74 USPATFULL on STN
L12
       77:62780 USPATFULL
ΔN
ΤI
       Dentifrices
       Cordon, Martin, Highland Park, NJ, United States
IN
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
PΙ
       US 4060599
                                19771129
                                19760409 (5)
ΑI
       US 1976-675098
       Continuation-in-part of Ser. No. US 1975-561842, filed on 25 Mar 1975,
RLI
       now patented, Pat. No. US 3957968 which is a continuation-in-part of
       Ser. No. US 1973-389826, filed on 20 Aug 1973, now abandoned which is a
       continuation-in-part of Ser. No. US 1973-355365, filed on 30 Apr 1973,
       now abandoned
       Utility
DT
FS
       Granted
LN.CNT 357
INCL
       INCLM: 424/049.000
       NCLM: 424/049.000
NCL
IC
       [2]
       ICM: A61K007-16
       ICS: A61K007-26
       424/57; 424/49; 424/52; 424/54; 424/58
EXF
     ANSWER 3 OF 74 USPATFULL on STN
L12
       77:61796 USPATFULL
AN
       Ester substituted dibiguanides and non-toxic antimicrobial compositions
ΤI
       Bauman, Robert Andrew, New Brunswick, NJ, United States
TN
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                                                      <--
ΡI
       US 4059687
                                19771122
                                19761126 (5)
       US 1976-745511
ΑI
DT
       Utility
       Granted
FS
LN.CNT 372
       INCLM: 424/054.000
INCL
       INCLS: 424/310.000; 560/034.000
NCL
              424/054.000
       NCLM:
              514/533.000; 560/034.000
       NCLS:
IC
       [2]
       ICM: A01N009-24
       ICS: A61K007-22; C07C129-16
       260/471R; 260/565; 424/310; 424/54
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L12 ANSWER 4 OF 74 USPATFULL on STN
       77:61733 USPATFULL
AN
       Insolubilized salts of 1,6-di-p-(chlorophenyl biguanido) hexane
ΤI
       Harrison, Michael, Newcastle-upon-Tyne, England
IN
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                                                      <--
                                19771122
       US 4059624
PΤ
       US 1975-630390
                                19751110 (5)
ΑI
```

```
Division of Ser. No. US 1973-424388, filed on 13 Dec 1973, now patented,
RLI
       Pat. No. US 3937805 which is a continuation-in-part of Ser. No. US
       1971-197498, filed on 10 Nov 1971, now abandoned
       GB 1970-56578
                           19701127
PRAI
DT
       Utility
FS
       Granted
LN.CNT 421
       INCLM: 260/565.000
INCL
       INCLS: 260/404.500; 260/429.300; 260/429.700; 260/448.000R;
              260/448.200N; 260/501.140; 424/052.000; 424/054.000
              564/235.000
NCL
       NCLM:
              424/052.000; 424/054.000; 556/036.000; 556/176.000; 556/400.000;
       NCLS:
              562/584.000
IC
       [2]
       ICM: C07C129-08
       ICS: C09F005-00; A61K007-18; A61K007-22
EXF
       260/501.14; 260/565
    ANSWER 5 OF 74 USPATFULL on STN
L12
       77:60612 USPATFULL
ΑN
       Stabilized toothpastes containing an enzyme
TΙ
       Nachtigal, Julius Harvey, Elizabeth, NJ, United States
IN
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                                                      <--
                                19771115
ΡI
       US 4058596
       US 1973-418599
                                19731123 (5)
ΑI
       Continuation of Ser. No. US 1971-188769, filed on 13 Oct 1971, now
RLI
       abandoned
DT
       Utility
       Granted
FS
LN.CNT 263
TNCL
       INCLM: 424/050.000
       NCLM: 424/050.000
NCL
IC
       [2]
       ICM: A61K007-28
       424/49-58
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 69 OF 74 USPATFULL on STN
ΑN
       73:3112 USPATFULL
ΤI
       FLUORIDE CONTAINING TRANSPARENT DENTIFRICE
       Colodney, Daniel, Green Brook, NJ, United States
IN
       Cordon, Martin, Highland Park, NJ, United States
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                19730116
                                                                      <--
       US 3711604
PΙ
       US 1971-164070
                                19710719 (5)
ΑI
DT
       Utility
FS
       Granted
LN.CNT 658
       INCLM: 424/052.000
INCL
       INCLS: 424/078.000; 424/081.000; 424/083.000
              424/052.000
NCL
       NCLM:
IC
       [1]
       ICM: A61R007-16
EXF
       424/52; 424/78; 424/81; 424/83
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L12 ANSWER 70 OF 74 USPATFULL on STN
       71:45082 USPATFULL
AN
       DENTAL CREAM
TΙ
       Norfleet, James, 506 Lee Pl., Plainfield, NJ, United States 07063
IN
```

```
Roberts, Francis D., 22 Crest Drive, W. Millington, NJ, United States
       07946
                                                                      <--
       US 3624199
                                19711130
PI
       US 1969-818047
                                19690421 (4)
ΑI
DT
       Utility
FS
       Granted
LN.CNT 295
       INCLM: 424/057.000
INCL
       NCLM:
              424/057.000
NCL
       NCLS: 206/524.500
IC
       [1]
       ICM: A61K007-16
       424/49-58
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 71 OF 74 USPATFULL on STN
       71:43921 USPATFULL
ΑN
ΤI
       STABLE DENTAL CREAM
       Roberts, Francis D., W. Millington, NJ, United States
TN
       Norfleet, James, Plainfield, NJ, United States
       Colgate-Palmolive Company, New York, NY, United States
PA
                                                                      <--
PΙ
       US 3622662
                                19711123
                                19690421 (4)
ΑI
       US 1969-818059
DT
       Utility
FS
       Granted
LN.CNT 329
       INCLM: 424/054.000
INCL
       INCLS: 424/057.000; 424/058.000
       NCLM:
              424/054.000
NCL
       NCLS: 424/057.000; 424/058.000
IC
       [1]
       ICM: A61R007-16
       424/49-58
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 72 OF 74 USPATFULL on STN
L12
       71:43920 USPATFULL
ΑN
TΙ
       ORAL PREPARATIONS
       King, William James, River Edge, NJ, United States
IN
       Miller, Glendon Richard, Wichita, KS, United States
       Colgate-Palmolive Company, New York, NY, United States
PA
                                                                      <--
PΙ
       US 3622661
                                19711123
       US 1970-54594
                                19700713 (5)
AΤ
       Continuation-in-part of Ser. No. US 1968-751352, filed on 9 Aug 1968,
RLI
       now abandoned
DT
       Utility
       Granted
FS
LN.CNT 352
INCL
       INCLM: 424/050.000
       INCLS: 424/094.000
NCL
       NCLM:
              424/050.000
       NCLS:
              424/094.610
IC
       [1]
       ICM: A61R007-16
EXF
       424/50
L12
    ANSWER 73 OF 74 USPATFULL on STN
       71:32730 USPATFULL
AN
       SIALAGOGUE
TI
       Fuller, George Herbert, Colonia, NJ, United States
IN
       Colgate-Palmolive Company, New York, NY, United States
PA
       US 3608069
                                19710921
                                                                      <--
PΙ
```

```
19690320 (4)
       US 1969-809019
ΑI
DT
       Utility
       Granted
FS
LN.CNT 391
       INCLM: 424/052.000
INCL
       INCLS: 099/140.000
NCL
       NCLM: 424/052.000
       NCLS: 426/548.000
IC
       [1]
       ICM: A61K007-16
       424/49-58; 099/140
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L12 ANSWER 74 OF 74 USPATFULL on STN
AN
       71:32729 USPATFULL
ΤI
       FLAVOR COMPOSITION
       Fuller, George H., Colonia, NJ, United States
IN
       Klisch, Stephen, Somerset, NJ, United States
       Colgate-Palmolive Company, New York, NY, United States
PA
                                                                     <--
                               19710921
       US 3608068
PΤ
                               19690320 (4)
       US 1969-809035
ΑI
DТ
       Utility
FS
       Granted
LN.CNT 267
       INCLM: 424/049.000
INCL
       INCLS: 099/140.000
NCL
       NCLM: 426/534.000
       NCLS: 424/044.000; 424/049.000; 426/533.000
IC
       (1)
       ICM: A61K007-16
EXF
       424/49-58; 099/140
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
=> D HIS
     (FILE 'HOME' ENTERED AT 14:17:14 ON 29 OCT 2003)
     FILE 'USPATFULL' ENTERED AT 14:17:24 ON 29 OCT 2003
L1
              1 S OCTOXYGLYCERIN? AND BIGUANIDE?
             12 S OCTOXYGLYCERIN AND ANTIBACTERI?
L2
L3
            606 S BIGUANIDE AND ANTIBACTERI?
              1 S L2 AND L3
L4
     FILE 'REGISTRY' ENTERED AT 14:20:10 ON 29 OCT 2003
              1 S OCTOXYGLYCERIN/CN
L5
     FILE 'USPATFULL' ENTERED AT 14:21:32 ON 29 OCT 2003
             27 S 10438-94-5/RN
L6
         281531 S HIS
L7
L8
              1 S L6 AND L3
            368 S L3 AND PD<1999
L9
            129 S L3 AND PD<1980
L10
             0 S L3 AND PD<1970
L11
L12
             74 S L3 AND PD<1978
=> S L6 AND PD<1995
       1890742 PD<1995
                 (PD<19950000)
            10 L6 AND PD<1995
L13
```

=> D L13 1-10 BIB, KWIC

```
L13 ANSWER 1 OF 10 USPATFULL on STN
       91:62831 USPATFULL
AN
       Process for preparing flame retardant polyamide molding resins
ΤI
       containing melamine cyanurate
       Sprenkle, Jr., William E., Palmer, MA, United States
ΙN
       Monsanto Company, St. Louis, MO, United States (U.S. corporation)
PA
       US 5037869
                               19910806
PΙ
       US 1990-534873
                               19900608 (7)
ΑI
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Morgan, Kriellion S.
CLMN
       Number of Claims: 19
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 636
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19910806
                                                                     <--
      57-55-6, Propylene glycol, uses and miscellaneous
                                                           107-21-1, Ethylene
IT
                                       117-81-7, DOP 123-31-9, Hydroquinone,
      glycol, uses and miscellaneous
                              3648-20-2, DUP 10438-94-5, Octadiol
      uses and miscellaneous
      25322-68-3, Polyethylene glycol
        (compatibilizers, for in-situ formation of melamine cyanurate in
        polyamides)
    ANSWER 2 OF 10 USPATFULL on STN
L13
       87:86257 USPATFULL
AN
       Ether carboxylates and process for preparing same
TI
IN
       Sekine, Fumimaro, Wakayama, Japan
       Kurosaki, Tomihiro, Osaka, Japan
       Ukena, Toshinao, Wakayama, Japan
       Kamitani, Hiroshi, Wakayama, Japan
       Kao Corporation, Tokyo, Japan (non-U.S. corporation)
PΑ
                                                                     <--
       US 4713487
                               19871215
РΤ
                               19860522 (6)
ΑI
       US 1986-865859
       JP 1985-123315
                           19850606
PRAI
       JP 1985-138484
                           19850625
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Killos, Paul J.
       Oblon, Fisher, Spivak, McClelland, & Maier
LREP
CLMN
       Number of Claims: 2
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 283
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19871215
PΙ
       US 4713487
      1561-07-5, 1-Lauryl glyceryl ether 10438-94-5, 1-Octyl glyceryl
IΤ
              58911-83-4, 1-(2-Decyltetradecyl) glyceryl ether
        (conversion of, to sodium alcoholate)
L13 ANSWER 3 OF 10 USPATFULL on STN
       84:44125 USPATFULL
AN
       Octodiol, a solvent for direct dissolution of cholesterol gallstones
TI
IN
       Hofmann, Alan F., La Jolla, CA, United States
       The Regents of the University of California, Berkeley, CA, United States
PA
       (U.S. corporation)
       US 4464399
                                                                     <--
                               19840807
PΙ
       US 1983-506424
                               19830621 (6)
AΙ
       Utility
DT
FS
       Granted
EXNAM Primary Examiner: Goldberg, Jerome D.; Assistant Examiner: Morrison,
```

```
Joyce L.
       Mueth, Joseph E.
LREP
       Number of Claims: 6
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 149
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                                                                     <--
                               19840807
      US 4464399
   10438-94-5P
        (prepn. of, for dissoln. of cholesterol gallstones in humans)
    ANSWER 4 OF 10 USPATFULL on STN
L13
       83:41346 USPATFULL
ΑN
       Complexed compounds, processes for their manufacture and their use
ΤI
       Wirth, Hermann O., Bensheim-Auerbach, Germany, Federal Republic of
IN
       Friedrich, Hans-Helmut, Lautertal-2, Germany, Federal Republic of
       Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)
PΑ
PI
       US 4404408
                               19830913
                               19770907 (5)
       US 1977-831309
ΑI
                           19760908
       CH 1976-11391
PRAI
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Shaver, Paul F.
LREP
       Hall, Luther A. R.
       Number of Claims: 6
CLMN
ECL
       Exemplary Claim: 1
       No Drawings
DRWN
LN.CNT 2065
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 4404408
                               19830913
PΙ
      71-48-7D, complexes with polyols
                                         75-75-2D, complexes with polyols
IT
                                          127-09-3D, complexes with polyols
      121-43-7D, complexes with polyols
                                          306-61-6D, complexes with polyols
      142-72-3D, complexes with polyols
                                          513-77-9D, complexes with polyols
      373-02-4D, complexes with polyols
                                          627-92-9D, complexes with metal salts
      543-90-8D, complexes with polyols
                                           1310-65-2D, complexes with polyols
      1309-42-8D, complexes with polyols
                                           1561-07-5D, complexes with metal
      1317-36-8D, complexes with polyols
                                                   2794-60-7D, complexes with
              2092-16-2D, complexes with polyols
                3251-23-8D, complexes with polyols
                                                      6303-21-5D, complexes with
      polyols
                7446-14-2D, complexes with polyols
                                                      7446-70-0D, complexes with
      polyols
                7447-39-4D, complexes with polyols
                                                      7487-94-7D, complexes with
      polyols
                7550-45-0D, complexes with polyols
                                                      7601-90-3D, complexes with
      polyols
                                                      7637-07-2D, complexes with
                7631-86-9D, complexes with polyols
      polyols
                                                      7646-85-7D, complexes with
                7646-78-8D, complexes with polyols
      polyols
                                                      7647-18-9D, complexes with
                7647-15-6D, complexes with polyols
      polyols
                7664-38-2D, complexes with polyols
                                                      7664-93-9D, complexes with
      polyols
                7681-11-0D, complexes with polyols
                                                      7697-37-2D, complexes with
      polyols
                                                      7699-45-8D, complexes with
                7699-43-6D, complexes with polyols
      polyols
                                                      7718-54-9D, complexes with
      polyols
                7705-08-0D, complexes with polyols
                                                      7757-82-6D, complexes with
                7727-43-7D, complexes with polyols
      polyols
                                                      7758-94-3D, complexes with
                7757-88-2D, complexes with polyols
      polyols
                                                      7761-88-8D, complexes with
      polyols
                7758-98-7D, complexes with polyols
                                                      7772-99-8D, complexes with
                7772-98-7D, complexes with polyols
      polyols
                                                      7783-40-6D, complexes with
                7773-01-5D, complexes with polyols
      polyols
                7786-30-3D, complexes with polyols
                                                      7787-39-5D, complexes with
      polyols
                                                      7787-60-2D, complexes with
                7787-47-5D, complexes with polyols
      polyols
                                                      7789-75-5D, complexes with
                7789-48-2D, complexes with polyols
      polyols
                7789-79-9D, complexes with polyols
                                                      7790-86-5D, complexes with
      polyols
                                                      10025-82-8D, complexes
                10025-73-7D, complexes with polyols
      polyols
                                                          10026-04-7D,
                     10025-91-9D, complexes with polyols
      with polyols
                              10026-12-7D, complexes with polyols
      complexes with polyols
      10028-22-5D, complexes with polyols 10031-24-0D, complexes with polyols
```

```
10108-73-3D, complexes with polyols
      10108-64-2D, complexes with polyols
                                            10192-46-8D, complexes with polyols
      10124-37-5D, complexes with polyols
                                            10241-05-1D, complexes with polyols
      10193-36-9D, complexes with polyols
                                            10361-92-9D, complexes with polyols
      10257-55-3D, complexes with polyols
      10377-57-8D, complexes with polyols
                                            10377-60-3D, complexes with polyols
      10421-48-4D, complexes with polyols 10438-94-5D, complexes with
                   10553-31-8D, complexes with polyols
                                                         12013-47-7D,
     metal salts
                               12032-36-9D, complexes with polyols
      complexes with polyols
      12032-52-9D, complexes with polyols
                                            12035-39-1D, complexes with polyols
                                            13255-26-0D, complexes with polyols
      12049-50-2D, complexes with polyols
                                            13597-44-9D, complexes with polyols
      13446-03-2D, complexes with polyols
                                            13701-64-9D, complexes with polyols
      13598-36-2D, complexes with polyols
                                            13776-74-4D, complexes with polyols
      13767-68-5D, complexes with polyols
                                            13780-04-6D, complexes with polyols
     13778-49-9D, complexes with polyols
      13823-29-5D, complexes with polyols
                                            13840-10-3D, complexes with
                                       13968-67-7D, complexes with polyols
     polyola, uses and miscellaneous
                                            14332-33-3D, complexes with polyols
      14332-25-3D, complexes with polyols
                                            14902-88-6D, complexes with polyols
      14332-60-6D, complexes with polyols
      15060-64-7D, complexes with polyols
                                            15947-70-3D, complexes with polyols
                                                20128-42-1D, complexes with
      18023-86-4D, complexes with metal salts
               20548-54-3D, complexes with polyols
                                                      21056-98-4D, complexes
      polyols
                    21109-95-5D, complexes with polyols
                                                           21402-25-5D,
     with polyols
                               21784-78-1D, complexes with polyols
      complexes with polyols
      22341-56-6D, complexes with polyols
                                            22636-32-4D, complexes with metal
                                                    25476-16-8D, complexes with
              22775-65-1D, complexes with polyols
      salts
                26946-37-2D, complexes with polyols
                                                      27288-44-4D, complexes
     polyols
                     40199-83-5D, complexes with polyols
                                                           57172-29-9D,
     with polyols
      complexes with polyols
                               62568-17-6D, complexes with polyols
      63387-30-4D, complexes with polyols
                                            63387-32-6D, complexes with polyols
                                            66368-80-7D, complexes with metal
      66368-77-2D, complexes with polyols
             66368-81-8D, complexes with polyols
                                                    66368-82-9D, complexes with
                    66368-83-0D, complexes with metal salts
                                                              66368-84-1D,
     metal salts
                               66368-85-2D, complexes with polyols
      complexes with polyols
      66369-70-8D, complexes with metal salts 66369-71-9D, complexes with
                   66369-72-0D, complexes with metal salts
                                                              66369-73-1D,
     metal salts
                                   66369-74-2D, complexes with metal salts
      complexes with metal salts
      66369-75-3D, complexes with metal salts 66395-19-5D, complexes with
               66395-20-8D, complexes with polyols
                                                      66410-06-8D, complexes
      polyols
     with metal salts 66413-92-1D, complexes with metal salts
                                                                   66469-45-2D,
      complexes with polyols 66541-53-5D, complexes with polyols
        (antistatic agents, for org. materials)
L13 ANSWER 5 OF 10 USPATFULL on STN
       76:29063 USPATFULL
       Perfume blend including 2-keto-6-substituted-dioxanes-(1,4)
       Barillo, Joseph, Glen Rock, NJ, United States
       Payne, Jr., Thomas A., Teaneck, NJ, United States
       Urban, Warren J., River Vale, NJ, United States
       Lever Brothers Company, New York, NY, United States (U.S. corporation)
                               19760525
      US 3959185
                               19750303 (5)
      US 1975-554940
       Division of Ser. No. US 1974-452229, filed on 18 Mar 1974, now abandoned
      Utility
       Granted
      Primary Examiner: Goldberg, Jerome D.; Assistant Examiner: Fagelson, A.
EXNAM
       Dusyn, Kenneth F., Farrell, James J., Grant, Arnold
      Number of Claims: 5
```

10043-35-3D, complexes with polyols

10043-84-2D, complexes with polyols

10048-98-3D, complexes with polyols

ΑN

TI

IN

PΑ

PI

ΑI

RLI

DTFS

LREP

CLMN ECL

Exemplary Claim: 1

10043-52-4D, complexes with polyols

10045-86-0D, complexes with polyols

10101-39-0D, complexes with polyols

```
DRWN
      No Drawings
LN.CNT 371
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                                                                    <--
      US 3959185
                              19760525
PΙ
                                                          42789-13-9P
      1117-86-8P 1119-86-4P 10438-94-5P 13006-29-6P
IT
        (prepn. and cyclization with chloroacetic acid, dioxanone from)
L13 ANSWER 6 OF 10 USPATFULL on STN
       76:24559 USPATFULL
AN
       Synthetic polymers stabilized with a nickel benzoate and a polyol
TI
       Rasberger, Michael, Allschwil, Switzerland
IN
       Rody, Jean, Basel, Switzerland
      Moser, Paul, Riehen, Switzerland
      Mueller, Helmut, Binningen, Switzerland
      Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)
PA
                               19760504
      US 3954708
PΙ
                               19741212 (5)
      US 1974-532142
ΑI
      Division of Ser. No. US 1973-365801, filed on 31 May 1973, now patented,
RLI
       Pat. No. US 3867340
      CH 1972-9334
                           19720621
PRAI
DT
      Utility
      Granted
FS
EXNAM Primary Examiner: Hoke, V. P.
      Hall, Luther A. R.
LREP
      Number of Claims: 12
CLMN
       Exemplary Claim: 1
ECL
DRWN
      No Drawings
LN.CNT 382
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3954708
                               19760504
                                      102-71-6, uses and miscellaneous
IT
      56-81-5, uses and miscellaneous
                                       111-42-2, uses and miscellaneous
               103-76-4 108-16-7
      102-79-4
      115-77-5, uses and miscellaneous 120-07-0 122-20-3
                                                              141-43-5, uses
                        1561-07-5
                                    3179-63-3 10438-94-5
      and miscellaneous
      52511-61-2
        (stabilizers, contg. nickel hydroxybenzoates and hindered phenols, for
       polypropylene)
L13 ANSWER 7 OF 10 USPATFULL on STN
       76:21849 USPATFULL
AN
       2-Keto-6-substituted dioxane-(1,4) compounds
TI
       Barillo, Joseph, Glen Rock, NJ, United States
IN
       Payne, Jr., Thomas A., Teaneck, NJ, United States
       Urban, Warren J., River Vale, NJ, United States
       Lever Brothers Company, New York, NY, United States (U.S. corporation)
PΑ
      US 3952016
                               19760420
PT
                               19750303 (5)
      US 1975-554941
ΑI
       Division of Ser. No. US 1974-452229, filed on 18 Mar 1974, now abandoned
RLI
DT
       Utility
FS
       Granted
      Primary Examiner: Milestone, Norma S.
EXNAM
       Dusyn, Kenneth F., Farrell, James J., Grant, Arnold
LREP
       Number of Claims: 5
CLMN
       Exemplary Claim: 1
ECL
DRWN
      No Drawings
LN.CNT 368
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3952016
                               19760420
PΤ
                  1119-86-4P 10438-94-5P
                                            13006-29-6P
                                                          42789-13-9P
IT
      1117-86-8P
        (prepn. and reaction of, with chloroacetic acid)
```

```
75:49539 USPATFULL
ΑN
       Polyolefines with increased stability on processing, and with improved
ΤI
       Friedrich, Hans-Helmut, Lindenfels, Odenwald, Germany, Federal Republic
IN
       Linhart, Helmut, Reinach, Switzerland
       Wirth, Hermann O., Bensheim-Auerbach, Germany, Federal Republic of
       Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)
PA
       US 3907749
                               19750923
PΙ
                               19740513 (5)
ΑI
       US 1974-469273
PRAI
       DE 1973-2324922
                           19730517
      Utility
DT
       Granted
FS
EXNAM Primary Examiner: Hoke, V. P.
LREP
       Hall, Luther A. R., Shust, Nestor W.
CLMN
       Number of Claims: 5
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 608
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                                                                     <--
                               19750923
PΤ
      US 3907749
                             20276-23-7
                                          54575-17-6
                                                       54581-73-6
      5149-48-4 10438-94-5
IT
        (decompn. temp. of)
L13 ANSWER 9 OF 10 USPATFULL on STN
       75:9068 USPATFULL
AN
       Nickel stabilizers for synthetic polymers
ΤI
IN
       Rasberger, Michael, Allschwil, Switzerland
       Rody, Jean, Basel, Switzerland
       Moser, Paul, Riehen, Switzerland
       Muller, Helmut, Binningen, Switzerland
       Ciba-Geigy Corporation, Ardsley, NY, United States (U.S. corporation)
PA
       US 3867340
                               19750218
PΙ
      US 1973-365801
                               19730531 (5)
ΑI
      CH 1972-9334
                           19720621
PRAI
DT
      Utility
FS
       Granted
EXNAM Primary Examiner: Hoke, V. P.
       Shust, Nestor W.
LREP
CLMN
      Number of Claims: 10
ECL
       Exemplary Claim: 1
      No Drawings
DRWN
LN.CNT 309
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3867340
                               19750218
PΤ
                                        102-71-6, uses and miscellaneous
IT
      56-81-5, uses and miscellaneous
                                       111-42-2, uses and miscellaneous
      102-79-4
               103-76-4 108-16-7
                                         120-07-0
                                                   122-20-3
                                                                141-43-5, uses
      115-77-5, uses and miscellaneous
                                     3179-63-3 10438-94-5
      and miscellaneous
                         1561-07-5
      52511-61-2
        (stabilizers, contg. nickel hydroxybenzoates and hindered phenols, for
        polypropylene)
L13 ANSWER 10 OF 10 USPATFULL on STN
       72:15066 USPATFULL
ΑN
       SILVER HALIDE EMULSION CONTAINING 1.2-GLYCOL AS SENSITIZER AND
ΤI
       ANTIFOGGANT
       Sonoda, Minoru, Kanagawa, Japan
IN
       Yammamoto, Nobuo, Kanagawa, Japan
       Mikawa, Akikazu, Kanagawa, Japan
       Fuji Photo Film Co., Ltd., Ashigara-Kamigun, Kanagawa, Japan
PA
                               19720321
                                                                     <--
PΙ
       US 3650759
```

```
19690709 (4)
      US 1969-840477
AΤ
                           19680709
       JP 1968-48021
PRAI
DT
      Utility
FS
       Granted
EXNAM Primary Examiner: Torchin, Norman G.; Assistant Examiner: Louie, Jr.,
       Won H.
       Sughrue, Rothwell, Mion, Zinn & Macpeak
LREP
       Number of Claims: 11
CLMN
DRWN
       No Drawings
LN.CNT 259
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3650759
                               19720321
PΤ
                                                           584-03-2 1635-04-7
                                                538-43-2
TТ
      76-09-5 93-56-1
                         123-34-2 513-85-9
      6920-22-5 10438-94-5
        (photographic fog inhibitor and sensitizer)
=> D HIS
     (FILE 'HOME' ENTERED AT 14:17:14 ON 29 OCT 2003)
     FILE 'USPATFULL' ENTERED AT 14:17:24 ON 29 OCT 2003
              1 S OCTOXYGLYCERIN? AND BIGUANIDE?
T.1
             12 S OCTOXYGLYCERIN AND ANTIBACTERI?
L2
            606 S BIGUANIDE AND ANTIBACTERI?
L3
              1 S L2 AND L3
L4
     FILE 'REGISTRY' ENTERED AT 14:20:10 ON 29 OCT 2003
              1 S OCTOXYGLYCERIN/CN
L5
     FILE 'USPATFULL' ENTERED AT 14:21:32 ON 29 OCT 2003
             27 S 10438-94-5/RN
L6
         281531 S HIS
L7
              1 S L6 AND L3
L8
L9
            368 S L3 AND PD<1999
            129 S L3 AND PD<1980
L10
             0 S L3 AND PD<1970
L11
L12
             74 S L3 AND PD<1978
L13
             10 S L6 AND PD<1995
=> D L12 1-10, 69-74 BIB, KWIC
L12 ANSWER 1 OF 74 USPATFULL on STN
       78:24587 USPATFULL
AN
       Dentifrice containing visible agglomerated particles of polishing agents
TΙ
       Roberts, Francis D., West Millington, NJ, United States
TN
       Steinke, III, John J., Fayetteville, NY, United States
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                               19780516
       US 29634
PΙ
                               19710413 (Original)
                                                                     <--
       US 3574823
                               19750815 (5)
       US 1975-604997
ΑI
                               19680805 (Original)
       US 1968-750028
       Continuation of Ser. No. US 1972-224629, filed on 8 Feb 1972, now
RLI
       abandoned
       Reissue
DT
       Granted
FS
EXNAM Primary Examiner: Rose, Shep K.
       Sheffer, Abner
LREP
       Number of Claims: 36
CLMN
       Exemplary Claim: 1
ECL
DRWN
     No Drawings
```

```
LN.CNT 668
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       US 29634
                               19780516
PI
       US 3574823
                               19710413 (Original)
                                                                     <--
       The toothpaste may also contain antibacterial agents in
SUMM
       amounts of about 0.01-5%. Typical examples of such agents are
       quanidines, biquanides and amines such as:
       p-Chlorophenyl biguanide;
SUMM
       4-chlorobenzhydryl biguanide;
SUMM
L12 ANSWER 2 OF 74 USPATFULL on STN
       77:62780 USPATFULL
AΝ
       Dentifrices
TI
       Cordon, Martin, Highland Park, NJ, United States
ΙN
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
                                                                     <--
                               19771129
PΙ
       US 4060599
ΑI
       US 1976-675098
                               19760409 (5)
DCD
       19930518
       Continuation-in-part of Ser. No. US 1975-561842, filed on 25 Mar 1975,
RLI
       now patented, Pat. No. US 3957968 which is a continuation-in-part of
       Ser. No. US 1973-389826, filed on 20 Aug 1973, now abandoned which is a
       continuation-in-part of Ser. No. US 1973-355365, filed on 30 Apr 1973,
       now abandoned
DT
       Utility
FS
       Granted
       Primary Examiner: Jiles, Henry R.; Assistant Examiner: Owens, Cary
EXNAM
       Stone, Robert L., Grill, Murray M., Sylvester, Herbert S.
LREP
       Number of Claims: 6
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 357
       US 4060599
                               19771129
PΙ
         . . quaternized imidazole derivatives, which are available under
SUMM
       the trademark "Miranol" such as Miranol C.sub.2 M. Cationic surface
       active germicides and antibacterial cmpounds such as
       di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride, benzyl
       dimethyl stearyl ammonium chloride, tertiary amines, having one fatty
       alkyl group.
SUMM
       The toothpaste may also contain antibacterial agents in
       amounts of about 0.1 -5%. Typical examples of such agents are
       quanidines, biguanides and amines such as:
       N.sup.0 -(4-chlorobenzyl)-N.sup.5 -2,4-(dichlorobenzyl)
SUMM
       biguanide;
SUMM
       p-chlorophenyl biguanide;
       4-chorobenzhydryl biguanide;
SUMM
    ANSWER 3 OF 74 USPATFULL on STN
L12
       77:61796 USPATFULL
AN
       Ester substituted dibiquanides and non-toxic antimicrobial compositions
TI
       Bauman, Robert Andrew, New Brunswick, NJ, United States
IN
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                                                     <--
PΙ
       US 4059687
                               19771122
                               19761126 (5)
AΤ
       US 1976-745511
       Utility
DΨ
       Granted
FS
       Primary Examiner: Raymond, Richard L.
EXNAM
       Stone, Robert L., Grill, Murray M., Sylvester, Herbert S.
LREP
       Number of Claims: 9
CLMN
ECL
       Exemplary Claim: 1,9
```

```
DRWN
      No Drawings
LN.CNT 372
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       US 4059687
                               19771122
         . . or by alkyl, alkoxy or nitro groups and the phenyl is attached
SUMM
       directly or through an alkylene group to the biguanide nucleus
       are described in U.S. Pat. Nos. 2,684,924 and 2,683,919. The ethylene
       bis-aryl biguanides are described in U.S. Pat. No. 2,690,455.
       Dibiquanides wherein an ethyl hexyl radical is the terminal group
       attached to the biguanide nucleus in oral compositions is
       disclosed in U.S. Pat. Nos. 3,562,385 and 3,887,712. Related analogs of
       Chlorhexidine wherein the terminal.
      Although Chlorhexidine has been found to be an effective
SUMM
       antibacterial agent against dental plaque, it is made from
       p-chloroaniline and the final product will contain small amounts of this
       . . . Compounds wherein A or B is a carboxyl radical in lieu of
DETD
       instant alkyl ester radical are substantially devoid of
       antibacterial activity.
       . . . such as glycerine, sorbitol, propylene glycol 400; detergents;
DETD
       gelling agents such as Irish moss and sodium carboxy methyl cellulose;
       additional antibacterial agents; coloring or whitening agents;
       preservatives; silicones; chlorophyll compounds, additional ammoniated
       materials; flavoring or sweetening materials; and compounds which
       provide.
L12 ANSWER 4 OF 74 USPATFULL on STN
       77:61733 USPATFULL
AN
       Insolubilized salts of 1,6-di-p-(chlorophenyl biguanido) hexane
TI
       Harrison, Michael, Newcastle-upon-Tyne, England
IN
       Colgate Palmolive Company, New York, NY, United States (U.S.
PΑ
       corporation)
                                                                    <--
       US 4059624
                               19771122
PΤ
       US 1975-630390
                               19751110 (5)
ΑI
       Division of Ser. No. US 1973-424388, filed on 13 Dec 1973, now patented,
RLI
       Pat. No. US 3937805 which is a continuation-in-part of Ser. No. US
       1971-197498, filed on 10 Nov 1971, now abandoned
PRAI
       GB 1970-56578
                          19701127
       Utility
DT
FS
       Granted
EXNAM Primary Examiner: Thomas, Jr., James O.; Assistant Examiner:
       Breitenstein, G. T.
       Stone, Robert L., Grill, Murray M., Sylvester, Herbert S.
LREP
CLMN
      Number of Claims: 1
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 421
                               19771122
PΙ
       US 4059624
       This invention relates to dentifrice compositions which contain an
SUMM
       antibacterial agent which is effective in promoting oral
       hygiene, such as by reducing dental plaque, improving gingival
       conditions and reducing formation.
       . . . with certain of its aspects, this invention relates of
SUMM
       preparing a dentifrice composition comprising a non-toxic insolubilized
       1,6-di-(p-chlorophenyl biguanido) hexane antibacterial agent
       in amount corresponding to about 0.01-5% by weight of the free base
       thereof and a dentifrice vehicle in which.
       . . . acceptable and compatible with an oral composition such as a
SUMM
      dentifrice or a mouthwash. Indeed, a soluble form of the
```

antibacterial agent may react with an additional component of an

sarcosinate to.

oral composition such as sodium monofluorophosphate or sodium N-lauroyl

```
The insolubilized antibacterial agent is used in the oral
SUMM
       composition in amount corresponding to 0.01-5% by weight, preferably
       0.05-1%, based on the free base form of the antibacterial
       agent.
            . salt thereof to form the water-insoluble polymer. It is noted
SUMM
       that at about pH 10, the free base of the antibacterial agent
       is insoluble and is, therefore, when in such state, included within the
       scope of the oral compositions of this.
       . . microns and has a specific gravity of 2.42, is a particularly
SUMM
       desirable polishing agent in dentifrice compositions containing the
       insolubilized antibacterial agent, and particularly the
       insolubilized disarcosinate of 1,6-di-(p-chlorophenyl biguanido) hexane.
      When visually clear gels are employed, a polishing agent of.
       . . to carbohydrate breakdown in addition to exerting some
SUMM
       reduction in the solubility of tooth enamel in acid solutions.
       Furthermore, the antibacterial agent and the sarcosinate can
       react in situ to form desirable insoluble salts in accordance with the
       invention.
       . . highly effective in preventing brown staining of dental enamel
SUMM
       and possess substantially no bitter taste. These salts also effectively
       provide antibacterial effect to the dentifrice compositions.
       Cationic surface active germicides and antibacterial compounds
       such as di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride,
       benzyl dimethyl stearyl ammonium chloride, tertiary amines, having one
       fatty alkyl group. .
       The insolubilized antibacterial agents employed in accordance
SUMM
       with this invention do not impart a bitter or undesirable taste to oral
       compositions. The taste. . .
       . . . the water soluble fluorine content thereof. Potassium
SUMM
       hexafluorozirconate, sodium hexafluorostannate and sodium
       monofluorophosphate can form insoluble polymeric salts with the
       antibacterial agent in situ in the dentifrice composition and
       still be present in excess. Sodium fluoride, stannous fluoride and
       sodium monofluorophosphate.
      Additional antibacterial agents may also be employed in the
SUMM
       oral preparations of the instant invention to provide a total content of
       such agents of up to about 5% by weight. Typical antibacterial
       agents include
       N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl)
SUMM
      biquanide;
SUMM
       4-chlorobenzhydryl biguanide;
L12 ANSWER 5 OF 74 USPATFULL on STN
       77:60612 USPATFULL
AN
       Stabilized toothpastes containing an enzyme
TI
       Nachtigal, Julius Harvey, Elizabeth, NJ, United States
IN
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PΑ
       corporation)
       US 4058596
                               19771115
PΙ
                               19731123 (5)
       US 1973-418599
ΑI
       Continuation of Ser. No. US 1971-188769, filed on 13 Oct 1971, now
RLI
       abandoned
DT
       Utility
       Granted
FS
EXNAM Primary Examiner: Brust, Joseph P.
       Baron, Steven J., Grill, Murray M., Sylvester, Herbert S.
LREP
       Number of Claims: 7
CLMN
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 263
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

19771115

PΙ

US 4058596

<--

```
SUMM
       It may be desirable also to include antibacterial agents in
       the carrier, typically in an amount of about 0.01 to 5 percent,
       preferably about 0.05 to 1.0 percent of the carrier. Typical
       antibacterial agents include the bis-phenols and bisbiguanides
       such as:
       p-chlorophenyl biguanide;
SUMM
SUMM
       4-chlorobenzhydryl biguanide;
L12 ANSWER 6 OF 74 USPATFULL on STN
       77:60611 USPATFULL
ΑN
ΤI
       Stabilized toothpastes containing an enzyme
IN
       Colodney, Daniel, Green Brook, NJ, United States
PA
       Colgate-Palmolive Company, New York, NY, United States (U.S.
       corporation)
                                19771115
       US 4058595
PI
                                19740321 (5)
       US 1974-453360
ΑI
       Continuation of Ser. No. US 1971-188993, filed on 13 Oct 1971, now
RLI
       abandoned
DT
       Utility
       Granted
FS
       Primary Examiner: Brust, Joseph P.
EXNAM
LREP
       Baron, Steven J., Grill, Murray M., Sylvester, Herbert S.
       Number of Claims: 9
CLMN
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 253
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       US 4058595
                                19771115
PΤ
       It may be desirable also to include antibacterial agents in
SUMM
       the carrier, typically in an amount of about 0.01 to 5 percent,
       preferably about 0.05 to 1.0 percent of the carrier. Typical
       antibacterial agents include the bis-phenols and bis-biguanides
       such as:
SUMM
       p-chlorophenyl biquanide;
SUMM
       4-chlorobenzhydryl biguanide;
L12 ANSWER 7 OF 74 USPATFULL on STN
ΔN
       77:52697 USPATFULL
       Oral compositions for plaque, caries, and calculus retardation with
TI
       reduced staining tendencies
       Gieske, Henry Anthony, Covington, KY, United States
IN
       Juneja, Prem Sagar, Cincinnati, OH, United States
       The Procter & Gamble Company, Cincinnati, OH, United States (U.S.
PA
       corporation)
       US 4051234
                                19770927
                                                                      <--
PΙ
ΑI
       US 1976-681867
                                19760429 (5)
       Continuation-in-part of Ser. No. US 1975-584304, filed on 6 Jun 1975,
RLI
       now abandoned which is a continuation-in-part of Ser. No. US
       1974-495951, filed on 9 Aug 1974, now abandoned
DT
       Utility
       Granted
FS
       Primary Examiner: Rose, Shep K.
EXNAM
       Hemingway, Ronald L., Allen, George W., Witte, Richard C.
LREP
CLMN
       Number of Claims: 20
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 882
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19770927
PΤ
       US 4051234
AΒ
       Oral compositions such as toothpastes, mouthwashes and the like
       containing a particular substantive bis-biguanide compound
       which inhibits the formation of plaque and caries, an a specific amino
```

```
carboxylate compound which inhibits the tendency of the bis-
biguanide compound to produce a stain on oral surfaces,
preferably while maintaining the bis-biguanide as a
water-soluble salt.
```

- SUMM The bis-biguanide compounds of this invention are known, having been disclosed in U.S. Pat. No. 2,684,924, Rose et al., patented July 27,. . .
- Attempts have been made in the prior art to reduce the tooth-staining tendency of bis-biguanide antiplaque agents. For example Haefele, U.S. Pat. No. 3,934,002 issued Jan. 20, 1976 and Haefele's pending U.S. pat. application Ser. No. 635,030, filed Nov. 25, 1975, relate to the formation of insoluble bis-biguanide salts to reduce staining of teeth. Such insoluble materials are not, however, very useful in formulating clear liquid oral products. . .
- SUMM . . . compositions since some chelators have a tendency to damage dental enamel. There is thus a continuing need for reduced staining bisbiguanide compositions which contain soluble materials and which do not contain chelating agents that are potentially damaging to teeth.
- It has now been discovered that if the specific bis-biguanide compounds disclosed herein and the specific amino carboxylate compounds disclosed herein are used together in the oral cavity in the. . . and the compounds either being used together or sequentially, the stain that is normally caused by continuous use of the bis-biguanide compounds alone is effectively reduced. It is preferred that the amino carboxylate compound and the bis-biguanide compound be used together.
- SUMM The bis-biguanide compounds of this invention have the generic formula: ##STR1## wherein A and A' each represent either (1) a phenyl radical. . .
- SUMM . . . are those having a solubility in 25.degree. C. water equal to or greater than about 0.04%. Specific examples of these bisbiquanide compounds are disclosed hereinafter. pg,6
- SUMM . . . oral surfaces which is resistant to removal by ordinary brushing with conventional dentifrices. This stain problem prevents compositions containing these bis-biguanide compounds from being accepted by the consumer. The bis-biguanide compounds are normally used in amounts of from about 0.01% to about 2.5% by weight of the composition, preferably from. . . or greater amounts may be used. In general, all that is required is to have an effective amount of the bis-biguanide salt in the mouth sufficient to give antiplaque and/or anticaries effectiveness.
- SUMM . . . specific amino carboxylate compounds which have been found to be effective in preventing stain, but which do not precipitate the bis-biguanide compound are ethylenediaminediacetic acid (EDDA) and its pharmaceutically acceptable water-soluble salts (i.e., salts being soluble to the extent of equal. . . Haefele, U.S. Pat. No. 3,937,807, issued Feb. 10, 1976. Similar amino carboxylates, including ethylenediaminetetraacetic acid and iminodiacetic acid, precipitate the bis-biguanide compound and are very damaging to tooth enamel.
- SUMM . . . of the oral compositions of the present invention, it is to be understood that the chelator compounds react with the bis-biguanide compounds in the ratio of two moles of chelator to one mole of bisbiguanide compound. Enough chelator should be present. . . compositions herein such that some excess chelator is present in addition to that which reacts or would react with the bis-biguanide present. The concentration of such excess chelator generally ranges from about 0.01% to 1.25%, preferably from about 0.1% to about. . .
- SUMM In addition to the essential bis-biguanide and chelator components of the oral compositions of this invention as described in the foregoing, such compositions can also contain. . .
- ${\sf SUMM}$  . . . the present invention are dentifrice compositions, especially

```
weight of the bis-biquanide component and from about 0.1% to
       1.25% by weight of the composition of the chelator in excess of that
       which reacts with the bis-biguanide. Dentifrices also contain
       an abrasive polishing material and typically also contain sudsing
       agents, flavoring agents and sweetening agents. Toothpaste compositions.
            . those which are reasonably stable and form suds throughout a
SUMM
       wide pH range, and which will not react with the bis-biguanide
       compound, i.e., non-soap nonionic, cationic, zqitterionic and amphoteric
       organic synthetic detergents.
       . . such as saccharin and 0% to 0.3% (preferably 0.05% to 0.3%)
SUMM
       flavoring agent, and the balance water. The amount of bis-
      biguanide antibacterial agent in mouthwashes is
       typically from about 0.01% to about 1.2% by weight.
            . 3,934,002, issued Jan. 20, 1976. This patent is incorporated
SUMM
       herein by reference. However, if a solution is desired containing
       water-soluble bis-biquanide salt, then the
       phosphorus-containing anticalculus agent should not be used since it
       will form an insoluble salt with the bis-biguanide compound.
       . . . desired reduction is an effective amount. Generally, an amount
SUMM
      which supplies at least about 0.001 g. per usage of the bis-
      biguanide compound is effective. Composition components can be
       utilized in the instant method in sequential fashion instead of as
       single homogenous. . .
       When in the above examples, the following bis-biguanide
DETD
       compounds are substituted, either wholly or in part (50%) for the
       preferred chlorhexidine digluconate, substantially equivalent results
       are obtained in that plaque, calculus, caries and gingivitis are
       inhibited with reduced staining as compared to the use of the bis-
       biquanide compounds alone: 1,6-bis-(3-
       ethylhexylbiguanidohexane)dihydrochloride; 1,6-di-(N.sup.5
       -phenyl-N.sub.1 -diguanido) hexane tetrahydrochloride; 1,6-di-(N.sub.5
       -phenyl-N.sub.5 -methyl-N.sup.1 -diguanido)hexane dihydrochloride;
       1,6-di-(N.sup.5 -o-chlorophenyl-N.sup.1 -diguanido)hexane
       dihydrochloride; 1,6-di-(N.sup.5 -2,6-dichlorophenyl-N.sup.1
       -diguanido) - hexane dihydrochloride; . . . -p-chlorophenyl-N.sup.1
       -diquanido) dodecane dihydrochloride; 1,10-di-(N.sup.5 -phenyl-N.sup.1
       -diguanido) decane tetrahydrochloride; 1,12-di-(N.sup.5 -phenyl-N.sup.1
       -diguanido) dodecane tetrahydrochloride; 1,6-di-(N.sup.5
       -p-chlorophenyl-N.sup.1 -diguanido)hexane tetrahydrochloride; ethylene
       bis(1-tolyl biquanide); ethylene bis(p-tolyl biquanide
       ); ethylene bis(3,5-dimethylphenyl biguanide); ethylene
       bis(3,5-dimethylphenyl biguanide); ethylene
       bis(p-tert-amylphenyl biguanide); ethylene bis(nonylphenyl
       biguanide); ethylene bis (phenyl biguanide); ethylene
       bis (N-butylphenyl biguanide); ethylene bis (2,5-diethoxyphenyl
       biguanide); ethylene bis(2,4-dimethylphenyl biguanide
       ); ethylene bis(o-diphenyl biguanide); ethylene bis(mixed amyl
       naphthyl biguanide); N-butyl ethylene bis(phenyl
       biguanide); trimethylene bis(o-tolyl biguanide);
       N-butyl trimethylene bis(phenyl biguanide); tetramethylene
       bis(1-tolyl biguanide); the specific compounds disclosed in U.S. Pat. No. 2,863,919, Burtwell et al., Dec. 9, 1958), said patent
       being incorporated herein. . . cinnamates; thiocyanates; arginates;
       pyromellitates; tetracarboxybutyrates; benzoates; glutarates;
       monofluorophosphates; perfluoropropionates; and the salts prepared by
       reacting the following salts with the bis-biguanide compounds:
       Disodium ethane-1-hydroxy-1,1-diphosphonate; disodium salt of
       ethane-1,2-dicarboxy-1,2-diphosphonic acid; dipotassium salt of
       ethane-1,2-dicarboxy-1,2-dihydroxy-1,2-diphosphonic acid; the
       monocalcium salt of ethene-1,2-dicarboxy-1-phosphonic acid; the.
```

toothpastes. Dentifrices preferably contain from about 0.1% to 2.0% by

- 1. An oral composition effective in inhibiting bis-biguanide tooth staining and the formation of plaque, caries and calculus comprising a carrier suitable for use in the oral cavity and A. from about 0.01% to about 2.5% by weight of a tooth staining bis-biguanide compound, otherwise tending to produce a rather offensive brown tooth stain upon continuous oral use and having the generic formula: . . by weight of the composition of a chelator in excess of the amount of chelator which will react with the bis-biguanide compounds, and which in said concentration range effectively reduces said bis-biguanide tooth stain without precipitating said tooth-staining bis-biguanide, said chelator being an amino carboxylate compound selected from the group consisting of: Ethylene-diaminediacetic acid and the water-soluble pharmaceutically acceptable. . .
- 2. The composition of claim 1 wherein the bis-biguanide compound is a water-soluble salt and the ethylenediaminediacetic acid or salt thereof is symmetrical.
- 5. The composition of claim 2 containing from about 0.05% to about 1.2% by weight of the bis-biguanide compound and from about 0.1% to about 1% by weight of the amino carboxylate compound.
- 6. The composition of claim 2 wherein the bis-biguanide compound is [1,6-di-(N.sup.5 -p-chlorophenyl-N.sup.1 -di-guanido)hexane] digluconate.
- 7. The composition of claim 2 wherein the bis-biguanide compound is present as a pharmaceutically acceptable salt selected from the group consisting of the hydrochloride, acetate, and gluconate salts.
- 10. The composition of claim 2 in the form of a dentifrice A. wherein the bis-biguanide compound comprises from about 0.1% to 2.0% by weight of the composition; and B. wherein the carrier component comprises an. . .
- 12. The composition of claim 11 wherein the bis-biguanide is [1,6-di-(N.sup.5 -p-chlorophenyl-N.sup.1 -diguanido)hexane].
- 13. The composition of claim 2 in the form of a mouthwash wherein the bis-biguanide component comprises from about 0.01% to 1.2% by weight of the composition and wherein the carrier component comprises water and. . .
- 14. The composition of claim 13 wherein the bis-biguanide is [1,6-di-(N.sup.5 -p-chlorophenyl-N.sup.1 -diguanido)hexane].
- 15. The process of inhibiting bis-biguanide tooth-staining and dental plaque and caries, comprising the steps of: A. contacting the oral cavity with an effective amount of. . . carrier suitable for use in the oral cavity, and from about 0.01% to about 2.5% by weight of a tooth-staining bis-biguanide compound, otherwise tending to produce a rather offensive brown tooth stain upon continuous oral use, and having a generic formula:. . . weight of the combined compositions of a chelator in excess of the amount of chelator which will react with the bis-biguanide compounds of Step A, and which in said concentration range effectively reduces said bisbiguanide tooth stain without precipitating said tooth-staining bis-biguanide, said chelator being an amino carboxylate compound selected from the group consisting of: Ethylenediaminediacetic acid, and the water-soluble pharmaceutically acceptable. 16. A process of inhibiting bis-biguanide tooth-staining and dental plaque and caries comprising the step of contacting the oral cavity with an effective amount of a. . . suitable for use in the

oral cavity; and A. from about 0.01% to about 2.5% by weight of a tooth-staining bis-biguanide compound, otherwise tending to produce a rather offensive brown tooth stain upon continuous oral use, and having the generic formula: . . by weight of the composition of a chelator in excess of the amount of chelator which will react with the bis-biguanide compounds, and which in said concentration range effectively reduces said bis-biguanide tooth stain without precipitating said tooth-staining bis-biguanide, said chelator being an amino carboxylate compound selected from the group consisting of: Ethylene-diaminediacetic acid, and the water-soluble pharmaceutically acceptable. . . 17. The process of claim 16 wherein the bis-biguanide compound is a water-soluble salt of 1,6-di-(N.sup.5 -p-chlorophenyl-N.sup.1 -diguanido)hexane.

19. An oral composition effective in inhibiting bis-biguanide tooth staining and the formation of plaque, caries and calculus comprising a carrier suitable for use in the oral cavity and A. from about 0.01% to about 2.5% by weight of a tooth staining bis-biguanide compound, otherwise tending to produce a rather offensive brown tooth stain upon continuous oral use and having the generic formula: . . . chelator which in said concentration range is present in excess of the amount of chelator which will react with the bis-biguanide and which effectively reduces said bis-biguanide tooth stain without precipitating said tooth-staining bis-biguanide, said chelator being an amino carboxylate compound selected from the group consisting of: Ethylene-diaminediacetic acid and the water-soluble pharmaceutically acceptable. . . 20. A composition in accordance with claim 19 wherein the bis-biguanide is a water-soluble chlorhexidine salt.

```
L12 ANSWER 8 OF 74 USPATFULL on STN
AN
       77:49606 USPATFULL
       Dental preparation containing materials having calcium and phosphate
ΤI
       components
       Tomlinson, Kenneth, Bramhall, England
IN
       Duff, Edward John, Sandbach, England
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                               19770913
                                                                     <--
       US 4048300
PΤ
                               19760119 (5)
       US 1976-653998
ΑI
       Continuation of Ser. No. US 1974-431945, filed on 9 Jan 1974, now
RLI
       abandoned
                           19730111
PRAI
       GB 1973-1633
       GB 1973-35459
                           19730725
       GB 1973-35471
                           19730725
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Drezin, Norman A.
       Stone, Robert L., Grill, Murray M., Sylvester, Herbert S.
LREP
       Number of Claims: 31
CLMN
       Exemplary Claim: 1
ECL
DRWN
       No Drawings
LN.CNT 1458
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19770913
       US 4048300
       For some purposes it may be desirable to include antibacterial
SUMM
       agents in the compositions of the present invention. Typical
       antibacterial agents which may be used in amounts of about 0.01%
       to about 5%, preferably about 0.05% to about 1.0%, by.
       N.sup.1 -4(chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl) biguanide
SUMM
```

```
p-chlorophenyl biquanide;
SUMM
SUMM
      4-chlorobenzyhdryl biguanide;
L12 ANSWER 9 OF 74 USPATFULL on STN
      77:48095 USPATFULL
AN
       Dermatological compositions
TI
       Smith, Donald Edward, Hamilton, OH, United States
IN
       The Procter & Gamble Company, Cincinnati, OH, United States (U.S.
PA
       corporation)
                                                                    <--
PΙ
       US 4046886
                               19770906
ΑI
      US 1976-647943
                               19760112 (5)
RLI
      Division of Ser. No. US 1975-541902, filed on 17 Jan 1975, now patented,
       Pat. No. US 3952099 which is a division of Ser. No. US 1975-340787,
       filed on 22 Jul 1975, now patented, Pat. No. US 3896238 which is a
       continuation-in-part of Ser. No. US 1972-241404, filed on 5 Apr 1972,
      now abandoned
DT
      Utility
      Granted
EXNAM
      Primary Examiner: Rose, Shep K.
      Dabek, Rose Ann, Yetter, Jerry J., Witte, Richard C.
LREP
CLMN
      Number of Claims: 5
ECL
      Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 1266
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19770906
      US 4046886
PΙ
       . . . cetylpyridinium chloride, dodecyltrimethylammonium bromide,
DETD
      decylmorpholinium sulfate, and the like, are suitable for use as the
       antimicrobial agent herein. Likewise, halogenated antibacterial
      agents such as 3,5,4'-tribromosalicylanilide, bis-(3,5,6-trichloro-2-
      hydroxyphenyl)methane, bis-(3,5-dichloro-2-hydroxyphenyl) sulfide,
       3-trifluoromethyl-4,4'-dichlorocarbanilide, and mixtures thereof, can be
      used in conjunction with the compositions herein. . . to enhance
      their penetration into and through animal tissue. Another class of
      antimicrobial agents are the well-known alkyl or aryl bis-
      biquanide compounds. Such materials are commercially available.
      Also suitable herein are the salts, e.g., acetate, gluconate,
      hydrochloride, etc., of the foregoing bis-biguanides. Exemplary
      bis-biquanides suitable for use herein are 1,1'-hexamethylenebis
       [5'-(p-chlorophenyl)]-biquanide and the acetate and gluconate
       salts thereof, and 1,1'-hexamethylenebis [5-(2-ethylhexyl)]-
      biquanide and the acetate and gluconate salts thereof. A number
      of other suitable synthetic anti-bacterial agents are described in U.S.
               of epi-tetracycline hydrochloride and tetracycline
DETD
      hydrochloride (formed on dissolution of tetracycline hydrochloride in
      water), 3,5,4'-tribromosalicylanilide, bis-(3,5,6-trichloro-2-
      hydroxyphenyl)-methane, bis-(3,5-dichloro-2hydroxyphenyl) sulfide,
       3-trifluoromethyl-4,4'-dichlorocarbanilide, 1,1'-hexamethylenebis-
       [5'-(p-chlorophenyl)]biguanide, 1,1'-hexamethylenebis
       [5'-(2-ethylhexyl)]biquanide, cetylpyridinium chloride, zinc
       undecylenate, oxytetracycline, terramycin, gramicidin, aureomycin,
      neomycin, tyrothricin, sulfonilamide, penicillin and zinc
      pyridinethione-1-oxide. Especially preferred antimicrobial agents
      herein.
DETD
         . . tetracycline hydrochloride, an equilibrium mixture of
      tetracycline hydrochloride and epi-tetracycline hydrochloride,
       3,5,4, -tribromosalicyanilide, bis-(3,5,6-trichloro-2-hydroxyphenyl)
      methane, bis-(3,5-dichloro-2-hydroxyphenyl) sulfide,
       3-trifluoromethyl-4,4'-dichlorocarbanilide, 1,1'-hexamethylene bis
       [5'(p-chlorophenyl)] biguanide, 1,1'-hexamethylene bis
```

[5'-(2-ethylhexyl)]biguanide, cetylpyridinium chloride, zinc undecylenate, oxytetracycline, terramycin, gramicidin, aureomycin, neomycin, tyrothricin, sulfonilamide, and zinc pyridinethione-1-oxide, respectively, and equivalent results are secured.

```
L12 ANSWER 10 OF 74 USPATFULL on STN
       77:48081 USPATFULL
AN
TI
       Dental cream
       Mitchell, Robert Lee, Somerset, NJ, United States
IN
       Chung, William John, Spotswood, NJ, United States
       Colgate Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
       US 4046872
PΤ
                               19770906
                                                                     <--
ΑI
       US 1975-618856
                               19751002 (5)
       Continuation-in-part of Ser. No. US 1974-464896, filed on 29 Apr 1974,
RLI
       now abandoned which is a continuation-in-part of Ser. No. US
       1973-369705, filed on 13 Jun 1973, now abandoned
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Rose, Shep K.
       Stone, Robert L., Grill, Murray M., Sylvester, Herbert S.
LREP
CLMN
       Number of Claims: 22
ECL
       Exemplary Claim: 1
DRWN
      No Drawings
LN.CNT 447
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
                               19770906
       US 4046872
РΤ
       . . . detersive material may be included in the dentifrice
SUMM
       compositions. Such compatible materials are desirable to provide
       additional detersive, foaming and antibacterial properties
       depending upon the specific type of surface active material and are
       selected similarly. These detergents are water-soluble organic
       compounds.
       For some purposes it may be desirable to include antibacterial
SUMM
       agents in the compositions of the present invention. Typical
       antibacterial agents which may be used in amounts of about 0.01
       to about 5%, preferably about 0.05 to about 1.0%, by.
      N.sup.1 -4(chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl) biguanide
SUMM
SUMM
      p-chlorophenyl biguanide;
SUMM
       4-chlorobenzhydryl biquanide;
    ANSWER 69 OF 74 USPATFULL on STN
L12
       73:3112 USPATFULL
AN
       FLUORIDE CONTAINING TRANSPARENT DENTIFRICE
TI
IN
       Colodney, Daniel, Green Brook, NJ, United States
       Cordon, Martin, Highland Park, NJ, United States
       Colgate-Palmolive Company, New York, NY, United States (U.S.
PA
       corporation)
                                                                     <--
       US 3711604
                               19730116
PΙ
       US 1971-164070
                               19710719 (5)
ΑI
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Huff, Richard L.
       Herbert S. Sylvester et al.
LREP
       Number of Claims: 24
CLMN
DRWN
      No Drawings
LN.CNT 658
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
PΙ
      US 3711604
                               19730116
       . . . quaternized imidazole derivatives, which are available under
SUMM
       the trademark "Miranol" such as Miranol C.sub.2 M. Cationic surface
```

```
active germicides and antibacterial compounds such as
      di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride, benzyl
      dimethyl stearyl ammonium chloride, tertiary amines having one fatty
       alkyl group.
      Antibacterial agents may also be employed in the oral
SUMM
      preparations of the instant invention in an amount of about 0.1-5
      percent by weight. Typical antibacterial agents include
      N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl)
SUMM
      biquanide;
SUMM
      p-chlorophenyl biguanide;
SUMM
      4-chlorobenzhydryl biguanide;
L12 ANSWER 70 OF 74 USPATFULL on STN
      71:45082 USPATFULL
AΝ
ΤI
       DENTAL CREAM
      Norfleet, James, 506 Lee Pl., Plainfield, NJ, United States 07063
IN
       Roberts, Francis D., 22 Crest Drive, W. Millington, NJ, United States
                                                                     <--
      US 3624199
                               19711130
PΙ
      US 1969-818047
                               19690421 (4)
ΑI
DT
      Utility
FS
      Granted
EXNAM Primary Examiner: Huff, Richard L.
       Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Cornell;
LREP
       Ronald S., Corum; Thomas J., Miller; Richard N., Stone; Robert L.
      Number of Claims: 9
CLMN
      No Drawings
DRWN
LN.CNT 295
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3624199
                               19711130
       . . . ethylene oxide, condensates of ethylene oxide with propylene
DETD
       oxide condensates of propylene glycol ("Pluronics") and cationic surface
       active germicides and antibacterial compounds such as
       di-isobutylphenoxyethyl dimethyl benzyl ammonium chloride, benzyl
       dimethyl stearyl ammonium chloride, tertiary amines having one fatty
       alkyl group.
      Antibacterial agents may also be employed in the dental creams
DETD
       of the instant invention. Typical antibacterial agents include
      N.sup.1 -(4-chlorobenzyl-N.sup.5 -(2,4-dichlorobenzyl) biguanide
DETD
DETD
      p-chlorophenyl biquanide;
DETD
       4-chlorobenzhydryl biquanide;
       The antibacterial agent, when present, is employed in amounts
DETD
       of about 0.01-5 percent by weight, preferably about 0.05-5 percent.
L12 ANSWER 71 OF 74 USPATFULL on STN
ΑN
       71:43921 USPATFULL
       STABLE DENTAL CREAM
ТT
       Roberts, Francis D., W. Millington, NJ, United States
IN
       Norfleet, James, Plainfield, NJ, United States
       Colgate-Palmolive Company, New York, NY, United States
PA
                                                                     <--
       US 3622662
                               19711123
PΙ
       US 1969-818059
                               19690421 (4)
ΑI
DT
      Utility
FS
       Granted
EXNAM Primary Examiner: Huff, Richard L.
       Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Cornell;
LREP
       Ronald S., Corum; Thomas J., Miller; Richard M., Stone; Robert L.
      Number of Claims: 16
CLMN
DRWN
      No Drawings
LN.CNT 329
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

```
<--
                               19711123
       US 3622662
PΤ
               ethylene oxide, condensates of ethylene oxide with propylene
SUMM
       oxide condensates of propylene glycol ("Pluronics") and cationic surface
       active germicides and antibacterial compounds such as
       di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride, benzyl
       dimethyl stearyl ammonium chloride, tertiary amines having one fatty
       alkyl group.
       Antibacterial agents may also be employed in the dental creams
SUMM
       of the instant invention. Typical antibacterial agents include
       N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4 -dichlorobenzyl)
SUMM
      biquanide;
       p-chlorophenyl biguanide;
SUMM
       4-chlorobenzhydryl biguanide;
SUMM
SUMM
       The antibacterial agent, when present, is employed in amounts
       of about 0.01-5 percent by weight, preferably about 0.05-5 percent.
L12 ANSWER 72 OF 74 USPATFULL on STN
AN
       71:43920 USPATFULL
ΤI
       ORAL PREPARATIONS
       King, William James, River Edge, NJ, United States
IN
       Miller, Glendon Richard, Wichita, KS, United States
       Colgate-Palmolive Company, New York, NY, United States
PA
                               19711123
PΤ
       US 3622661
       US 1970-54594
                               19700713 (5)
ΑI
       Continuation-in-part of Ser. No. US 1968-751352, filed on 9 Aug 1968,
RLI
       now abandoned
DT
       Utility
FS
       Granted
       Primary Examiner: Huff, Richard L.
EXNAM
       Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Cornell;
LREP
       Ronald S., Corum; Thomas J., Miller; Richard N., Stone; Robert L.
       Number of Claims: 9
CLMN
      No Drawings
DRWN
LN.CNT 352
PΙ
      US 3622661
                               19711123
       . . . ethylene oxide, condensates of ethylene oxide with propylene
DETD
       oxide condensates of propylene glycol ("Pluronics") and cationic surface
       active germicides and antibacterial compounds such as
       di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride, benzyl
       dimethyl stearyl ammonium chloride, tertiary amines having one fatty
       alkyl group.
       Additionally, antibacterial agents may be desirably
DETD
       incorporated in the compositions of the invention. Such agents include:
       N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl)
DETD
      biquanide;
DETD
       p-chlorophenyl biguanide;
DETD
       4-chlorobenzyhydryl biguanide;
    ANSWER 73 OF 74 USPATFULL on STN
L12
       71:32730 USPATFULL
AN
       SIALAGOGUE
ΤI
       Fuller, George Herbert, Colonia, NJ, United States
IN
       Colgate-Palmolive Company, New York, NY, United States
PA
                                                                     <--
PΙ
       US 3608069
                               19710921
       US 1969-809019
                               19690320 (4)
ΑI
DT
       Utility
FS
       Granted
EXNAM Primary Examiner: Huff, Richard L.
       Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Cornell;
LREP
       Ronald S., Corum; Thomas J., Miller; Richard N., Stone; Robert L.
CLMN
       Number of Claims: 17
DRWN
      No Drawings
```

```
LN.CNT 391
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3608069
                               19710921
         . . of ethylene oxide, condensates of ethylene oxide with propylene
DETD
       oxide condensates of propylene glycol ("Pluronics") and cationic
       surface-active germicides and antibacterial compounds such as
       di-isobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride, benzyl
       dimethyl stearyl ammonium chloride, tertiary amines having one fatty
       alkyl group.
       It may be desirable too to include antibacterial agents in the
DETD
       carrier, typically in amount of about 0.01 percent-5 percent,
      preferably about 0.05-1.0 percent, by weight of the carrier. Typical
       antibacterial agents include:
DETD
      N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl)
      biguanide;
DETD
      p-chlorophenyl biquanide;
DETD
       4-chlorobenzhydryl biquanide;
L12 ANSWER 74 OF 74 USPATFULL on STN
       71:32729 USPATFULL
AN
       FLAVOR COMPOSITION
ΤI
IN
       Fuller, George H., Colonia, NJ, United States
       Klisch, Stephen, Somerset, NJ, United States
      Colgate-Palmolive Company, New York, NY, United States
PΑ
                                                                     <--
      US 3608068
                               19710921
PΙ
      US 1969-809035
                               19690320 (4)
ΑI
      Utility
DT
FS
      Granted
      Primary Examiner: Huff, Richard L.
EXNAM
       Sylvester; Herbert S., Grill; Murray M., Blumenkopf; Norman, Cornell;
LREP
       Ronald S., Corum; Thomas J., Miller; Richard N., Stone; Robert L.
      Number of Claims: 5
CLMN
      No Drawings
DRWN
LN.CNT 267
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
      US 3608068
                               19710921
PΤ
       . . of sorbitan monostearate with approximately 60 moles of
DETD
       athylene oxide, condensates of propylene glycol ("Pluronics") and
       cationic surface-active germicides and antibacterial compounds
       such as di-isobutylphenoxyethoxyethyl ammonium chloride, tertiary amines
      having one fatty alkyl group (of from 12 to 18 carbon atoms).
       It may be desirable too, to include antibacterial agents in
DETD
       the carrier, typically in amount of about 0.001-5 percent, preferably
       about 0.05-1.0 percent, of weight of the carrier typical
       antibacterial agents include:
DETD
      N.sup.1 -(4-chlorobenzyl)-N.sup.5 -(2,4-dichlorobenzyl)
      biquanide;
DETD
       p-chlorophenyl biquanide;
       4-chlorobenzhydrl biguanide;
DETD
```